IN THE SPECIFICATION:

Page 24, line 16, to page 27, line 2 to read as follows:

III. Generalized Description of Core Assembly for use in the Rotor Assemblies of Figures 2a and 2b

Reference is now made to Figure 3a which is a front perspective view of core 6 in accordance with the teachings of the present invention wherein core 6 includes a plurality of fins 13 extending radially outward from the length of the inner cylinder 110 of core 6. It is contemplated that core 6 typically comprises 6 fins13, with these fins being arranged equidistantly from each other. It is understood, however that more or less than six fins may be used, for example from 0 to 36 fins may be employed.

Additionally, a side elevation view of core 6 is depicted in Figure 3b. As seen in Figure 3b, R1 represents the distance from center of core 6 to inner cylinder 110. R2 represents the distance from center of core 6 to the outermost point of fin 13. D1 represents the chord of circle with radius R1. D2 represents the top width of fin 13. As seen in Figure 3b, the dimensions of core 6, which are adjustable, include, for example, D2 and R1.

Dimensions D2 and D1 are calculated so that the surface of fin 13 facing the fluid to be centrifuged maintains an angle of typically 2 degrees between the line from center of core 6 to the innermost point of fin 13 and on the outermost point on fin 13.

To determine the volume available for centrifugation when core 6 is disposed within rotor assembly 2, the volume of liquid typically needs to be calculated. With reference to Figure 3b, the volume of liquid can be calculated as follows:

$$V_{LIQUID} = V_{R2} - V_{CORE}$$

where:

V_{LIQUID} is the volume of the available for fluid during centrifugation;

V_{R2} is the volume of a cylinder with a radius of R_2; and

V_{CORE} is the volume of a core including the core cylinder and fins,

where V_{CORE} can be determined from:

$$Vcore = V_{R1} + nV_{FIN}$$

where:

V_{R1} is the volume of a cylinder of radius R_1;

n is the number of fins;

V_{FIN} is the volume of a single fin defined by dimensions D1, D2, R1, R2; and length of core L.

The volume of the cylinder core 6 with radius R2 (VR2) and the volume of the inner cylinder of core 6 with radius R1 (VR1) are easily determinable using the equations below:

$$VR_2 = \pi L R_2^2 \quad \text{and}$$

$$VR_1 = \pi L R_1^2$$

where:

L is the length of the core.

The value of nVfin is generally calculated as the volume occupied by n number of fins 13. The volume of fin 13, therefore, is calculated as the volume of the trapeze defined by D1, D2, h_{TRAP} of height L minus the volume of V_{CHORD1} defined as volume of the circle segment included in a circle of radius R1 and angle $2\theta_B$ of height L plus the volume of V_{CHORD2} defined as the volume of circle segment included in a circle of radius R2 and angle $2\theta_T$ of height L :

$$V_{FIN} = V_{TRAP} + V_{CHORD2} - V_{CHORD1}$$

where

V_{TRAP} is the volume of a trapeze included between D_1, D_2 of height h;

V_{CHORD2} is the volume of circle sector of radius R_2 included in an angle of $2\theta_A$;

and

V_{CHORD1} is the volume of circle sector of radius R_1 included in an angle of $2\theta_B$

The volume of the trapeze is calculated using the following equation:

$$V_{TRAP} = L\, h_{TRAP}(D_2 + D_1)/2,$$

where:

D_1 is the chord length at fin base;

D_2 is the chord length at the top of fin; and

h_{TRAP} is the height of the trapeze defined by chord D_1 and D_2.

The trapeze height h is calculated using the following equations:

$$h_{TRAP} = [c^2 - ((D_2 - D_1)/2)^2]^{1/2}$$

where c is:

$$c = [(R_2^2 + R_1^2 - 2\, R_1\, R_2\, (\cos(\theta_B - \theta_T))]^{1/2};$$

$$\theta_B = \pi/2 - \mathrm{acos}(D_1/2R_1); \text{ and}$$

$$\theta_T = \pi/2 - \mathrm{acos}(D_2/2R_2)$$

where θ_B and θ_T is in radians.

Therefore:

$$V_{CHORD1} = [L\, R_1^2\{2\arcsin(D_1/2R_1) - \sin\{2\arcsin(D_1/2R_1)\}\}] / 2$$

and

$$V_{CHORD2} = [L\, R_2^2\{2\arcsin(D_2/2R_2) - \sin\{2\arcsin(D_2/2R_2)\}\}] / 2.$$

~~III. Generalized Description of Core Assembly for Use in the Rotor Assemblies of Figures 2a and 2b~~

~~Reference is now made to Figure 3a which is a front perspective view of core 6 in accordance with the teachings of the present invention wherein the core 6 includes a plurality of fins 13 extending radially outward from the length of the inner cylinder 110 of the core 6. It is contemplated that core 6 typically comprises six fins 13, with these fins being arranged equidistantly from each other. It is understood, however, that more or less than six fins may be used, for example from 0 to 36 fins may be employed.~~

~~Additionally, reference is made to Figure 3b, wherein a side elevational view of core 6 is depicted. As seen in Figure 3b, R1 represents the distance from the center of core 6 to the inner cylinder 110. R2 represents the distance from the center of core 6 to the outermost point of fin 13. D1 represents the chord of the circle with a radius R1. D2 represents the top width of fin 13. As seen in Figure 3b, the dimensions of core 6 which are adjustable include, for example, D2 and radius R1.~~

~~From dimension D2, D1 is calculated so that the surface of fin 13 facing the fluid to be centrifuged maintains an angle of, typically, 2 degrees from vertical. The length of fin 13 is defined by the angle and the two radii (such as, for example, R1 = 2.143" and R2 = 2.598"). To determine the volume available for centrifugation when core 6 is disposed within rotor assembly 2, the volume of core 6 typically needs to be calculated. With reference to Figure 3B, the volume of core 6 can be approximated as follows:~~

$$\cancel{V_{CORE} = V_2 - V_1 - 6V_{FIN}}$$

~~where:~~

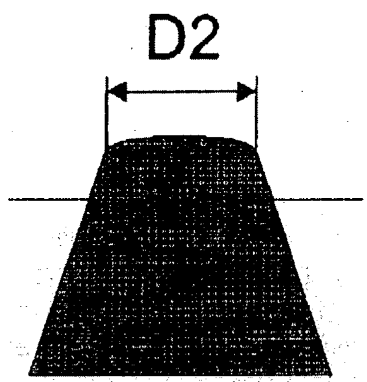
~~V_2 is the volume of the outer cylinder of the core (with radius R2),~~

~~V_1 is the volume of the inner cylinder of the core (with radius R1),~~

~~V_{FIN} is the volume of a single fin of dimensions θ_T, θ_B and D2, and~~

~~V_{CORE} is the volume available for fluid during centrifugation.~~

~~The volume of the outer cylinder of core 6 with a radius R2 (V_2) and the volume of the inner cylinder of core 6 with a radius R1 (V_1) are easily determinable. The value of $6V_{FIN}$, however, is generally calculated as the approximate volume occupied by fin 13. To this end, one would consider a section defined by one-half fin 13. Thus, fin 13 is approximated as a top-radiused trapezoidal section as shown below:~~



~~As D2 is a chord of the circle with a radius R2, the Top Fin Angle $2\theta_T$, wherein θ_T is the angle formed by one-half the top surface of fin 13 in radians, can be calculated according to the law of cosines as:~~

$$\cancel{2\theta_T = R2^2 + R2^2 - 2(R2)(R2)\cos(2\theta_T)}$$

~~or solving for θ_T:~~

$$\cancel{\theta_T = \cos 1[(1-D2^2)/2R2^2)]/2}$$

~~As the width across the bottom of fin 13 is typically such that an angle of approximately 2 degrees is maintained, and as the height of fin 13 is typically fixed, the end of the Fin Bottom (D1) is typically a fixed distance beyond the end of the Fin Top to achieve the same angle. In other words, D1 = D2 + the fixed distance (0.031").~~

~~Further, as D1 is a chord of the circle with a radius R1, an angle $2\theta_T$ is calculated as:~~

~~$2(\theta_T + \theta_B \text{ Schwenk}) = R1^2 + R1^2 - 2(R1)(R1)\cos(2(\theta_T + \theta_B))$;~~

~~wherein θ_B is the angle formed by one-half the bottom fin surface in radians.~~